

Honduran amphibians

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James R. McCranie & Larry D. Wilson. – *The amphibians of Honduras*. Ithaca, New York, USA, *SSAR Contribution to Herpetology* 19, 2002: i-x + 1-625, 20 plates with 154 colour photos, 67 b&w figures, 33 tables and 58 maps. US \$ 60.00. Hardbound. ISBN 0-916984-57-5.

The book of James R. McCranie and Larry D. Wilson deals with the Amphibians of Honduras. This is the nineteenth item of the great series *Contribution to Herpetology* published by the Society for the Study of Amphibians and Reptiles (SSAR). The authors transmit us very methodically the result of more than 30 years of field work spent in one of the less known countries of Middle America.

After a brief introduction where are given the intention and the architecture of the book, a detailed material and methods part is given.

The first chapter of the book allows us to get a very good insight of the Honduran environment through fourteen pages (p. 13-26). Data are provided on geography (main regions, rivers, relief, etc.), climates and vegetation. The following chapter provides a brief history of amphibian studies in Honduras; the authors relate how our knowledge on the Honduran herpetofauna grew little by little thanks to the scientific trips that occurred from the nineteenth century.

The following chapter (p. 35-87) consists of dichotomous keys: keys for orders, genera and species were elaborated; they are illustrated by many figures and are provided both in English and Spanish. These keys allow to identify not only adult specimens but also tadpoles, alive or preserved.

The next chapter, titled *Systematic accounts*, is the most voluminous part of the book (p. 89-499). A presentation of the nine families of amphibians occurring in Honduras is given. Systematic references, range, content and etymology are presented for each genus name. An important amount of data is provided for each species through different sections: list of synonyms, range, diagnosis, description of adults and tadpoles, illustrations, remarks (mostly in systematics), ecological distribution and natural history comments, etymology, specimens examined, and other records. Let us note that there is no section devoted to the call descriptions. In fact, the authors explained (p. 10) that they have few data in this respect, so that they just gathered the existing data of the literature and included them in the natural history comments. Many distribution maps are given, where the localities are accurately indicated by dots.

Twenty colour plates with good photographs come just after the systematic accounts. Both the habitats (24 photographs) and the amphibians (130 photographs) are presented.

The three following pages (p. 501-503) deal with the possible or doubtful occurrence of several amphibians species in Honduras. With regards to the amphibian species occurring in the vicinities of Honduras, the authors indeed think that seven further species should occur in that country. Conversely, the occurrence of one frog species (*Hyla crepitans* Wied-Neuwied, 1824) is questioned.

Through the two following short chapters, the authors analyse the reproductive modes and guild structures. The guild structures are taken into account for both adults and tadpoles.

Then, two chapters are devoted to environment and amphibian conservation in Honduras. In the first one, the authors recall the major causes of extinction and insist on the fact that three of them are due to human overpopulation. Given a high birth rate in Honduras, like in many other countries of Middle America, the authors consider different scenarios of the environmental impact of human population for the future. In the second one, they estimate by an interesting "environmental vulnerability scores" (EVS) which amphibian species are prone to extinction. On the basis of the EVS they obtained for each amphibian species, they discuss the efficiency of the existing system of Honduran biotic reserves in protecting the amphibian fauna. A new plan of action to restrain environmental damage to these animals is proposed.

After a two pages Spanish summary, a glossary, where 176 unfamiliar words are defined, is available, which will be very useful to all amphibian non-specialists.

The next part is a gazetteer (p. 553-578): details are given for 699 localities (including misspellings and various spellings of localities found in previous works). A map (p. 554) with 80 selected localities indicated by dots is also provided.

The gazetteer is followed by a list of 658 references (p. 579-610), including as well ancient books or papers of the previous centuries, as the most recent papers dealing with molecular phylogeny.

Finally, two indices are provided, one to the scientific names (p. 611-619), and another one to the authors' names (p. 619-625).

This book is well done and contains the largest quantity of data ever gathered on Honduran amphibians so far. It is not only a simple updated systematic list of animals with a key and some well-referenced details about their biology and biogeography, it is also an important tool of investigation for the amphibian conservation in Honduras. Such a work is a model of what should be done, among other things, to tackle the animal conservation problems on a sound foundation. I strongly recommend it without any reserve to all people interested in the Middle-America herpetofauna and in animal conservation.

